

# PATENT COOPERATION TREATY

## PCT

LIST OF DOCUMENTS FILED WITH THE  
INTERNATIONAL BUREAU  
AS RECEIVING OFFICE

To:

The International Bureau of WIPO  
PCT Receiving Office Section  
34, chemin des Colombettes  
1211 Geneva 20  
Switzerland

Facsimile No. +41 22 910 06 10

Applicant's or agent's file reference

1085-023WO01

International application No.  
(if known)

International filing date (day/month/year)  
(if known)

(Earliest) Priority date  
(day/month/year)

07 December 2004 (07.12.2004)

Applicant

NISSAN MOTOR CO., LTD. et al.

Title of invention

**BIPOLAR ELECTRODE BATTERIES AND METHODS OF MANUFACTURING  
BIPOLAR ELECTRODE BATTERIES**

The applicant hereby requests the International Bureau to acknowledge to the following person (include full name, address, facsimile No. and telephone No.):

Kent J. Sieffert  
Shumaker & Sieffert, P.A.  
8425 Seasons Parkway, Suite 105  
St. Paul, Minnesota  
United States of America

Telephone: 651-735-1100  
Facsimile: 651-735-1102

the receipt by the following means:

☐ mail (surface, air mail, registered)    ☐ delivery service    ☒ facsimile transmission    ☐ hand delivery

of the documents/elements listed below:

- ☒ PCT request (including declaration sheets) ( 5 pages)
- ☒ description (excluding sequence listing and/or tables relating thereto) ( 31 pages)
- ☒ claims ( 3 pages)
- ☒ abstract ( 1 pages)
- ☒ drawings ( 5 pages)
- ☐ sequence listing and/or tables relating thereto ( pages)
- ☒ fee calculation sheet
- ☐ separate authorization to charge deposit account
- ☒ cheque (indicate currency and amount) \$3238.00 (U.S. Dollars)
- ☐ cash (in person only) (indicate amount)
- ☐ power of attorney (general power, copy of general power, separate power) (indicate kind and number)
- ☐ statement explaining lack of signature (if more than one, indicate number)
- ☒ priority document (if more than one, indicate number) 1
- ☐ separate indications concerning deposited microorganism or other biological material ( pages)
- ☐ sequence listing and/or tables relating thereto in electronic form (indicate type and number of carriers)
- ☐ statement accompanying sequence listing and/or tables relating thereto in electronic form (if more than one, indicate number)
- ☐ accompanying letter
- ☐ other (specify):

# PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference  
(if desired) (12 characters maximum) 1085-023WO01

<b>Box No. I TITLE OF INVENTION</b> BIPOLAR ELECTRODE BATTERIES AND METHODS OF MANUFACTURING BIPOLAR ELECTRODE BATTERIES	
<b>Box No. II APPLICANT</b> <input type="checkbox"/> This person is also inventor	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) NISSAN MOTOR CO., LTD. 2 Takara-cho, Kanagawa-ku Yokohama-shi, Kanagawa 221-0023 Japan	
Telephone No.	
Facsimile No.	
Teleprinter No.	
Applicant's registration No. with the Office	
State (that is, country) of nationality: Japan	State (that is, country) of residence: Japan
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input checked="" type="checkbox"/> all designated States except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box	
<b>Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)</b>	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) NISSAN NORTH AMERICA 990 West 190th Street Torrance, California 90502 United States of America	
This person is: <input checked="" type="checkbox"/> applicant only <input type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)	
Applicant's registration No. with the Office	
State (that is, country) of nationality: U.S.	State (that is, country) of residence: U.S.
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input checked="" type="checkbox"/> all designated States except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box	
<input checked="" type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.	
<b>Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE</b>	
The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: <input checked="" type="checkbox"/> agent <input type="checkbox"/> common representative	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) SIEFFERT, Kent J. Shumaker & Sieffert, P.A. 8425 Seasons Parkway, Suite 105 St. Paul, Minnesota 55125 United States of America	
Telephone No. 651-735-1100	
Facsimile No. 651-735-1102	
Teleprinter No.	
Agent's registration No. with the Office 41,312	
<input type="checkbox"/> Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.	

## Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet should not be included in the request.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) <b>HOSAKA, Kenji</b> <b>3-15-11-414 Morisaki, Yokosuka-shi</b> <b>Kanagawa 238-0023</b> <b>Japan</b>		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: <b>Japan</b>		Applicant's registration No. with the Office
State (that is, country) of residence: <b>Japan</b>		
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) <b>SHIMAMURA, Osamu</b> <b>1-67-41-510 Higiriyama, Kohnan-ku</b> <b>Yokohama-shi, Kanagawa 233-0015</b> <b>Japan</b>		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: <b>Japan</b>		Applicant's registration No. with the Office
State (that is, country) of residence: <b>Japan</b>		
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) <b>HORIE, Hideaki</b> <b>7-12-2-C-303 Funakoshi, Yokosuka-shi</b> <b>Kanagawa 237-0076</b> <b>Japan</b>		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: <b>Japan</b>		Applicant's registration No. with the Office
State (that is, country) of residence: <b>Japan</b>		
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) <b>SAITO, Takamitsu</b> <b>11-6-1402 Nohkendai-higashi, Kanazawa-ku</b> <b>Yokohama-shi, Kanagawa 236-0076</b> <b>Japan</b>		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: <b>Japan</b>		Applicant's registration No. with the Office
State (that is, country) of residence: <b>Japan</b>		
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
<input checked="" type="checkbox"/> Further applicants and/or (further) inventors are indicated on another continuation sheet.		

**Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)***If none of the following sub-boxes is used, this sheet should not be included in the request.*

Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i> <b>KINOSHITA, Takuya</b> <b>7-18-7 Funakoshicho, Yokosuka-shi</b> <b>Kanagawa 237-0062</b> <b>Japan</b>		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i>
Applicant's registration No. with the Office		
State <i>(that is, country)</i> of nationality: <b>Japan</b>	State <i>(that is, country)</i> of residence: <b>Japan</b>	
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i> <b>ABE, Takaaki</b> <b>1-1-1-2402 Sugita, Isogo-ku</b> <b>Yokohama-shi, Kanagawa 235-0033</b> <b>Japan</b>		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i>
Applicant's registration No. with the Office		
State <i>(that is, country)</i> of nationality: <b>Japan</b>	State <i>(that is, country)</i> of residence: <b>Japan</b>	
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i> <b>KIRIU, Naoto</b> <b>1-11-6-202 Nagase</b> <b>Yokosuka-shi, Kanagawa 239-0826</b> <b>Japan</b>		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i>
Applicant's registration No. with the Office		
State <i>(that is, country)</i> of nationality: <b>Japan</b>	State <i>(that is, country)</i> of residence: <b>Japan</b>	
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i>    		This person is: <input type="checkbox"/> applicant only <input type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i>
Applicant's registration No. with the Office		
State <i>(that is, country)</i> of nationality:  	State <i>(that is, country)</i> of residence:  	
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box		
<input type="checkbox"/> Further applicants and/or (further) inventors are indicated on another continuation sheet.		

**Box No. V DESIGNATIONS**

The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

- ☐ DE Germany is not designated for any kind of national protection
- ☐ KR Republic of Korea is not designated for any kind of national protection
- ☐ RU Russian Federation is not designated for any kind of national protection

*(The check-boxes above may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. See the Notes to Box No. V as to the consequences of such national law provisions in these and certain other States.)*

**Box No. VI PRIORITY CLAIM**

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member of WTO	regional application:* regional Office	international application: receiving Office
item (1) 07 December 2004 (07.12.2004)	2004-354526	JP		
item (2) 28 October 2005 (28.10.2005)	2005-315147	JP		
item (3)				

- ☐ Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:

- ☐ all items    ☐ item (1)    ☐ item (2)    ☐ item (3)    ☐ other, see Supplemental Box

\* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)).

**Box No. VII INTERNATIONAL SEARCHING AUTHORITY**

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA / EP

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year)                      Number                      Country (or regional Office)

**Box No. VIII DECLARATIONS**

The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):

		Number of declarations
<input type="checkbox"/> Box No. VIII (i)	Declaration as to the identity of the inventor	:
<input type="checkbox"/> Box No. VIII (ii)	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	:
<input type="checkbox"/> Box No. VIII (iii)	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	:
<input type="checkbox"/> Box No. VIII (iv)	Declaration of inventorship (only for the purposes of the designation of the United States of America)	:
<input type="checkbox"/> Box No. VIII (v)	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	:

**Box No. IX CHECK LIST; LANGUAGE OF FILING**

This international application contains:

(a) on paper, the following number of sheets:

request (including declaration sheets) : 5  
 description (excluding sequence listing and/or tables related thereto) : 31  
 claims : 3  
 abstract : 1  
 drawings : 5  
 Sub-total number of sheets : 45

sequence listing :  
 tables related thereto :  
*(for both, actual number of sheets if filed on paper, whether or not also filed in electronic form; see (c) below)*

Total number of sheets : 45

(b) ☐ only in electronic form (Section 801(a)(i))

- (i) ☐ sequence listing  
 (ii) ☐ tables related thereto

(c) ☐ also in electronic form (Section 801(a)(ii))

- (i) ☐ sequence listing  
 (ii) ☐ tables related thereto

Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the

☐ sequence listing: .....  
☐ tables related thereto: .....  
*(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)*

This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):

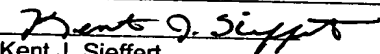
- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> fee calculation sheet  | 1 |
| 2. <input type="checkbox"/> original separate power of attorney   |   |
| 3. <input type="checkbox"/> original general power of attorney  |   |
| 4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: .....  |   |
| 5. <input type="checkbox"/> statement explaining lack of signature  |   |
| 6. <input checked="" type="checkbox"/> priority document(s) identified in Box No. VI as item(s): .....  | 1 |
| 7. <input type="checkbox"/> translation of international application into (language): .....   |   |
| 8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material  |   |
| 9. <input type="checkbox"/> sequence listing in electronic form (indicate type and number of carriers)  |   |
| (i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application):  |   |
| (ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter              |   |
| (iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column   |   |
| 10. <input type="checkbox"/> tables in electronic form related to sequence listing (indicate type and number of carriers)   |   |
| (i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application)  |   |
| (ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater) |   |
| (iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column   |   |
| 11. <input checked="" type="checkbox"/> other (specify): PCT/RO/198 (RO/IB) .....   | 1 |

Figure of the drawings which should accompany the abstract: 1

Language of filing of the international application: English

**Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE**

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

  
 Kent J. Sieffert  
 Agent for Applicant

For receiving Office use only

1. Date of actual receipt of the purported international application:

3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:

4. Date of timely receipt of the required corrections under PCT Article 11(2):

5. International Searching Authority (if two or more are competent): ISA /

6. ☐ Transmittal of search copy delayed until search fee is paid

2. Drawings:

☐ received:

☐ not received:

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

This sheet is not part of and does not count as a sheet of the international application.

# PCT

## FEE CALCULATION SHEET

Annex to the Request

For receiving Office use only

International Application No.

Applicant's or agent's  
file reference

1085-023WO01

Date stamp of the receiving Office

Applicant

NISSAN MOTOR CO., LTD. et al.

### CALCULATION OF PRESCRIBED FEES

1. TRANSMITTAL FEE . . . . . 79.00 [T]

2. SEARCH FEE . . . . . 1877.00 [S]

International search to be carried out by

EP

(If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search.)

3. INTERNATIONAL FILING FEE

Where items (b) and/or (c) of Box No. IX apply, enter Sub-total number of sheets

45

Where items (b) and (c) of Box No. IX do not apply, enter Total number of sheets

[i1] first 30 sheets . . . . . 1102.00 [i1]

[i2] 15 x 12 = 180.00 [i2]  
number of sheets fee per sheet  
in excess of 30

[i3] additional component (only if a sequence listing and/or tables  
related thereto are filed in electronic form under Section 801(a)(i),  
or both in that form and on paper, under Section 801(a)(ii)):

400 x = 0.00 [i3]  
fee per sheet

Add amounts entered at i1, i2 and i3 and enter total at I . . . . . 1282.00 [I]

(Applicants from certain States are entitled to a reduction of 75% of the international filing fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the international filing fee.)

4. FEE FOR PRIORITY DOCUMENT (if applicable) . . . . . 0.00 [P]

5. TOTAL FEES PAYABLE . . . . . 3238.00

Add amounts entered at T, S, I and P, and enter total in the TOTAL box

TOTAL

### MODE OF PAYMENT (Not all modes of payment may be available at all receiving Offices)

☐ authorization to charge  
deposit account (see below)

☐ postal money order

☐ cash

☐ coupons

☒ cheque

☐ bank draft

☐ revenue stamps

☐ other (specify):

### AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT

(This mode of payment may not be available at all receiving Offices)

☐ Authorization to charge the total fees indicated above.

☐ (This check-box may be marked only if the conditions for deposit accounts  
of the receiving Office so permit) Authorization to charge any deficiency  
or credit any overpayment in the total fees indicated above.

☐ Authorization to charge the fee for priority document.

Receiving Office: RO/

Deposit Account No.:

Date:

Name:

Signature: